Patent Claims

1. A turbine blade (63) with a blade leaf (67) arranged along a blade axis (73) and with a platform region (61) which, arranged at the root of the blade leaf, has a platform (71) extending transversely with respect to the blade axis (73), the platform (71) having a first platform wall (70) not bearing the blade leaf and a second platform wall (69) bearing the blade leaf, characterized in that at the root of the blade leaf (67), along a transition (65) from the blade leaf (67) to the platform (71), the first platform wall (70) has in its run an aerodynamic rounding (104), and the second platform wall (69) has in its run, with respect to the first platform wall (70) and in continuation of the blade leaf (67), a set-back step (103).

2. The turbine blade (63) as claimed in claim 1, characterized in that an interspace (91, 93) for cooling the platform (71) is formed between the rounding (104) of the first platform wall (70) and the step (103) of the second platform wall (69).

3. The turbine blade (63) as claimed in claim 1 or 2, characterized in that the interspace (91, 93) has a uniform height (105) defined along the entire run of the platform (71) essentially by a height of the step.

4. The turbine blade (63) as claimed in one of claims 1 to 3, characterized in that the second platform wall (69) has a wall thickness which is greater than a wall thickness of the first platform wall (70).

5. The turbine blade (63) as claimed in one of claims 1 to 4, characterized in that the second platform wall (69) has cooling passages (107), the number of cooling passages (107) per unit area being greater along the transition (65) than in the remaining platform region.

6. The turbine blade (63) as claimed in one of claims 1 to 5, characterized in that the first platform wall (70) is formed by a resilient elastic sheet metal part (77, 79) lying against the blade leaf (67).

7. The turbine blade (63) as claimed in one of claims 1 to 6, characterized in that the platform (71) extends qualitatively identically on both sides of the blade leaf (63).

8. A gas turbine (1) with a flow duct (5) extending along an axis (3) and having an annular cross section for a working medium (M), and with a second blade stage (9, 13) arranged downstream of a first (7, 11) along the axis (3), a blade stage (7, 9, 11, 13) having a number of annularly arranged turbine blades (63) as claimed in one of the preceding claims which extend radially into the flow duct (5).

9. The gas turbine (1) as claimed in claim 8, characterized in that, during the rotary operation of a turbine blade (63) in the form of a moving blade (23) on an axial turbine rotor, a centrifugal force acting from the root of the blade leaf in the direction (99) of the blade leaf is generated as a result of rotation, the resilient elastic sheet metal part (77, 79) being pressed against a stop (81, 85) by the centrifugal force and thereby being fastened by centrifugal force.

10. The gas turbine (1) as claimed in claim 8 or 9, characterized in that, during the operation of a turbine blade (63) in the form of a guide blade (21) on a peripheral turbine casing (15), a pressure drop from the root of the blade leaf in the direction (99) of the blade leaf is generated by a cooling medium, the resilient elastic sheet metal part (77, 79) being pressed against a stop (81, 83) by the pressure drop and thereby being fastened by pressure.